

ABSTRACT

The present invention relates to a multilayer piezoelectric transformer that uses a composite resonant vibration mode for step-up voltage conversion. More specifically, a multilayer piezoelectric transformer is provided using radial and shear vibration modes for step-up voltage conversion applications. Adjacent layers of piezoelectric ceramic act as a constraint on the deformation of one face of the input layers, leading to a gradient in the radial deformation of both the input and output portions. The piezoelectric transformer is used in a circuit for providing electro-luminescent (EL) backlighting.